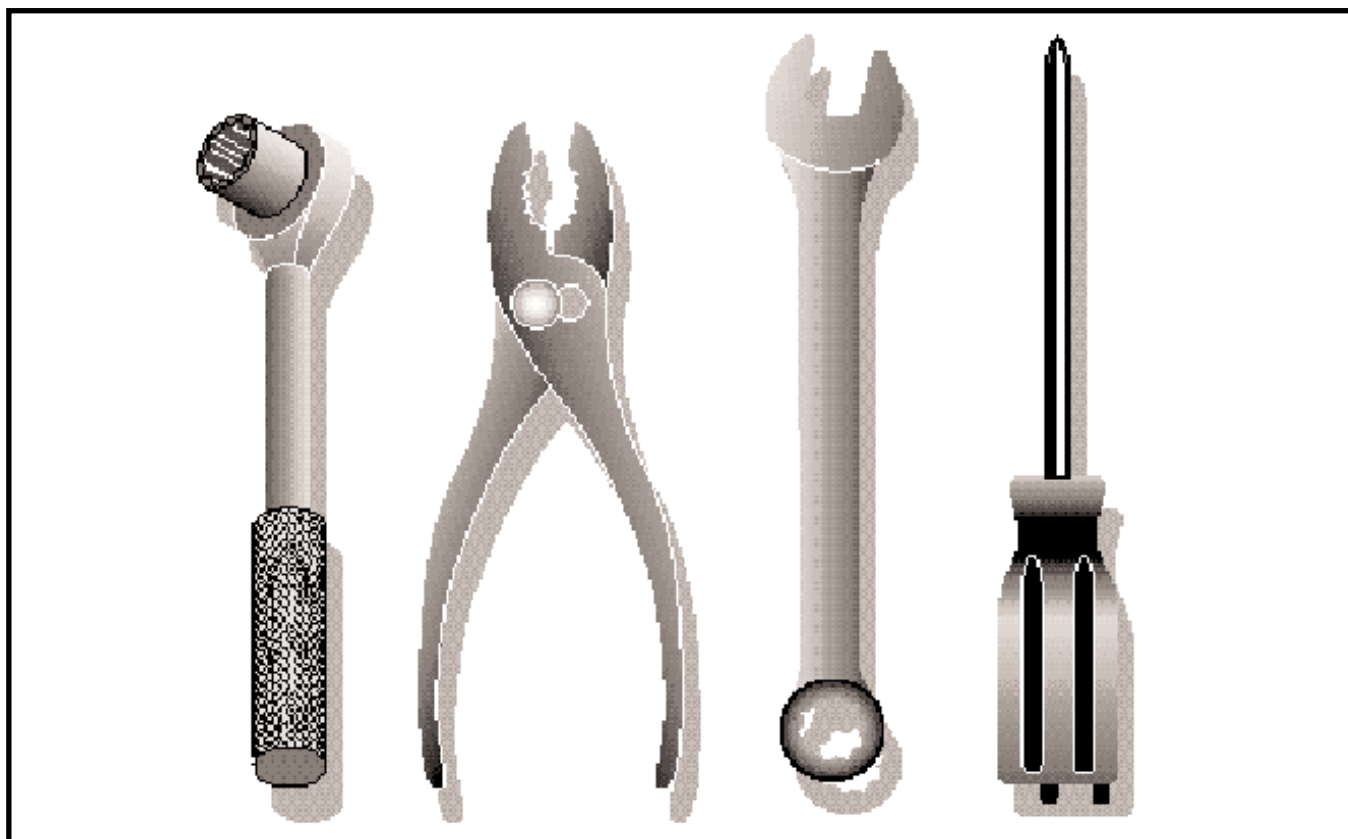


42 Inch

## Lawn Sweeper (45-0352)



Operator's Manual

# SAFETY RULES

Any power equipment can cause injury if operated improperly or if the user does not understand how to operate the equipment. Exercise caution at all times, when using power equipment.

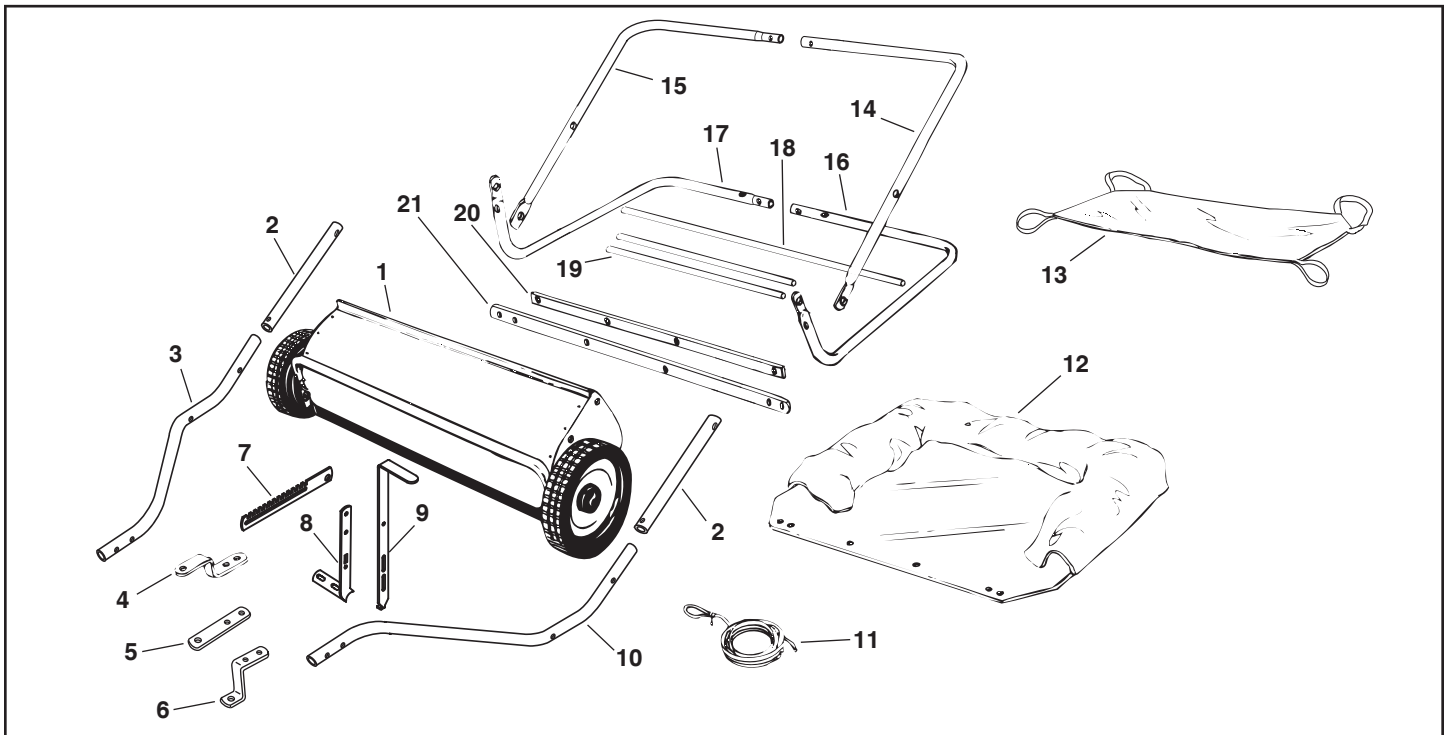
1. Read the vehicle and sweeper owners manuals and know how to operate your vehicle and sweeper before using this sweeper attachment. Always instruct other users before they operate the sweeper.
2. Do not permit children to operate sweeper.
3. Do not permit anyone to ride on sweeper.
4. Never attach the hopper rope to any part of your body or clothing! Never hold onto the rope while towing the sweeper! Attach the rope to the towing vehicle to keep it away from wheels and rotating parts.
5. Operate the sweeper at reduced speed on rough terrain, near ditches and on hillsides to prevent loss of control.
6. Vehicle braking and stability may be affected with the attachment of this sweeper. Do not fill sweeper to maximum capacity without checking the capability of the towing vehicle to safely pull and stop with the sweeper attached. **Stay off of steep slopes.**
7. Stop and inspect vehicle and sweeper for damage after striking an object. Repair any damage before continuing operation.
8. Keep sweeper away from fire. Excessive heat can damage the brushes and hopper bag and could cause the bag and its contents to burn.
9. Before storing the sweeper, always empty the hopper bag to avoid spontaneous combustion.
10. Follow maintenance and lubrication instructions as outlined in the maintenance section of this manual.



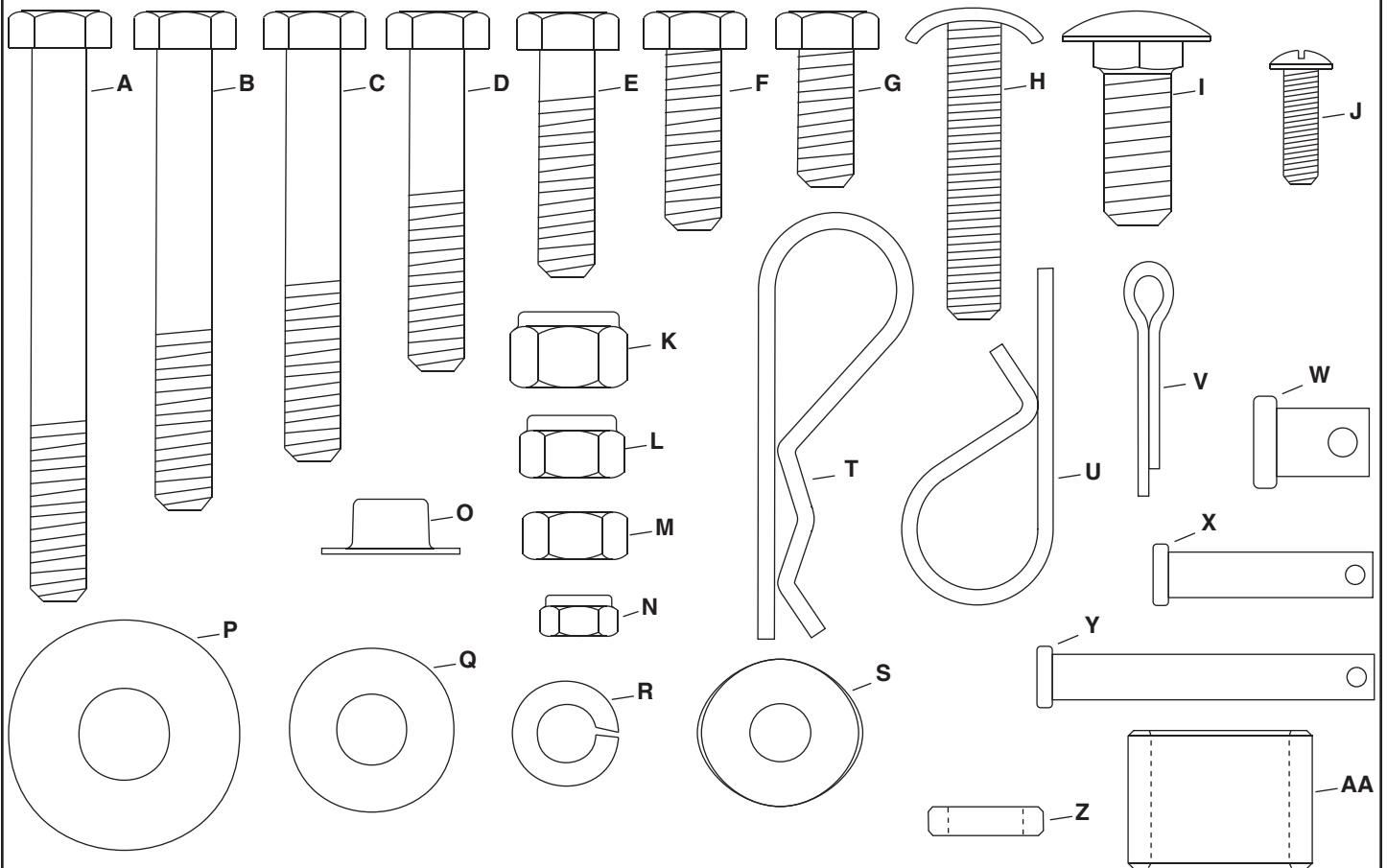
Look for this symbol to point out important safety precautions. It means--**Attention!! Become alert!!** Your safety is involved.

## CARTON CONTENTS

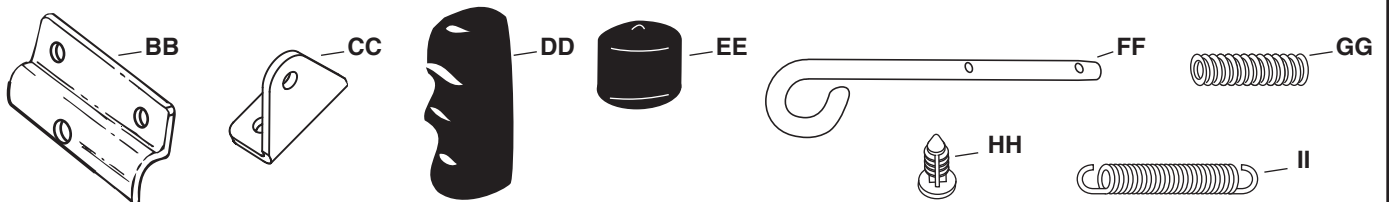
- |                                  |                             |
|----------------------------------|-----------------------------|
| 1. Sweeper Housing Assembly      | 11. Rope                    |
| 2. Bag Arm Tube (2)              | 12. Hopper Bag              |
| 3. Hitch Tube, R.H. (Right Hand) | 13. Wind Screen             |
| 4. Hitch Bracket, Bent           | 14. Upper Hopper Tube, L.H. |
| 5. Hitch Bracket, Straight       | 15. Upper Hopper Tube, R.H. |
| 6. Hitch Pin Bracket             | 16. Lower Hopper Tube, L.H. |
| 7. Height Adjustment Strap       | 17. Lower Hopper Tube, R.H. |
| 8. Lower Height Adjust Handle    | 18. Hopper Bag Pivot Rod    |
| 9. Upper Height Adjust Handle    | 19. Hopper Support Rod (2)  |
| 10. Hitch Tube, L.H. (Left Hand) | 20. Bag Retainer Strap      |
|                                  | 21. Bag Frame Strap         |



# SHOWN FULL SIZE



# NOT SHOWN FULL SIZE



REF.	QTY.	DESCRIPTION	REF.	QTY.	DESCRIPTION
A	2	Hex Bolt, 5/16-18 x 3" Lg.	S	2	Bowed Washer, 5/16"
B	1	Hex Bolt, 5/16-18 x 2-1/2" Lg.	T	1	Hair Cotter Pin, Large
C	1	Hex Bolt, 5/16-18 x 2-1/4" Lg.	U	6	Hair Cotter Pin, Small
D	4	Hex Bolt, 5/16-18 x 1-3/4" Lg.	V	1	Cotter Pin, 1/8" x 3/4"
E	1	Hex Bolt, 5/16" x 1-1/4"	W	2	Clevis Pin, 3/8" x 1/2"
F	4	Hex Bolt, 5/16" x 1"	X	2	Clevis Pin, 1/4" x 1-1/8"
G	6	Hex Bolt, 5/16" x 3/4"	Y	2	Clevis Pin, 1/4" x 1-3/4"
H	2	Curved Head Bolt, 5/16" x 1-5/8"	Z	1	Spacer, Small
I	1	Carriage Bolt, 3/8" x 1"	AA	2	Spacer, Hitch
J	6	Screw, #10-32 x 5/8"	BB	4	Hopper Mount Clamp
K	1	Nylock Nut, 3/8"	CC	1	Angle Bracket
L	21	Nylock Nut, 5/16"	DD	1	Grip
M	2	Hex Nut, 5/16"	EE	2	Vinyl Cap
N	6	Nylock Nut, #10-32	FF	1	Hitch Pin
O	2	Palnut	GG	1	Spring, Hitch Pin
P	1	Washer, 7/16"	HH	2	Plastic Plug
Q	4	Washer, 5/16"	II	1	Extension Spring
R	2	Lock Washer, 5/16"			

# ASSEMBLY OF SWEEPER

## TOOLS REQUIRED FOR ASSEMBLY

- (1) Knife or Scissors
- (1) Screwdriver
- (1) Hammer
- (1) 3/8" Open End or Box End Wrench
- (2) 1/2" Open End or Box End Wrench
- (1) 3/8" Open End or Box End Wrench

## STEP 1 - REMOVE PARTS FROM CARTON

1. To protect painted parts, lay them on cardboard or a mat.
2. Remove the sweeper housing, the loose parts and the hardware package from the carton. Lay out the parts and hardware as shown on pages 3 and 4.

## STEP 2 - INSTALL HITCH TUBES

3. The hitch tubes are stamped with a "77L" for the left tube and a "76R" for the right tube. The sweeper housing is marked with an "L" on the left side and an "R" on the right side. See figure 1.
4. Hold the left hitch tube against the left side of the sweeper so that the "77L" on the tube faces away from the sweeper. Attach the hitch tube using two 5/16" x 1-3/4" hex bolts and 5/16" nylock nuts. Repeat for the right hitch tube, but with the "76R" facing in toward the right side of the sweeper. **Do not tighten yet.** See figure 1.

## STEP 3 - REMOVE PLASTIC TIE

5. Remove the plastic tie that fastens the height adjustment tube to the front of the sweeper housing. See figure 1.

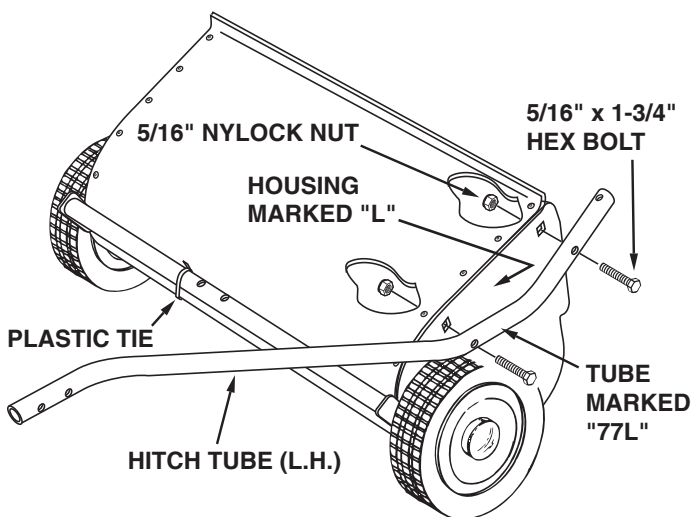


FIGURE 1

## STEP 4 - CONNECT HITCH TUBES

6. Fasten the hitch tubes together using two 5/16" x 3" hex bolts and 5/16" nylock nuts. **Do not tighten yet.** See figure 2.

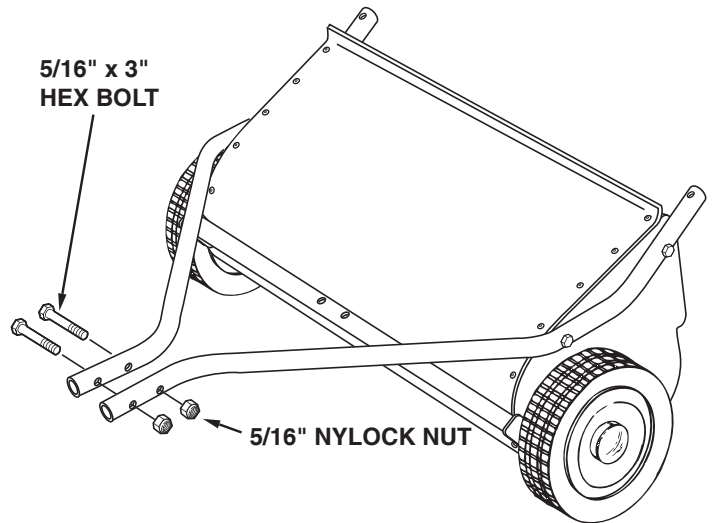


FIGURE 2

## STEP 5 - ASSEMBLE HITCH PIN

7. Assemble the hitch pin bracket, the hitch spring and then the 7/16" flat washer onto the hitch pin. Secure them to the hitch pin with a 1/8" x 3/4" cotter pin placed into the middle hole in the hitch pin. Spread ends of cotter pin around hitch pin. See figure 3.
8. Assemble the hitch pin bracket to the straight hitch bracket using a 3/8" x 1" carriage bolt and a 3/8" nylock nut. Align the brackets and **tighten.** See figure 3.

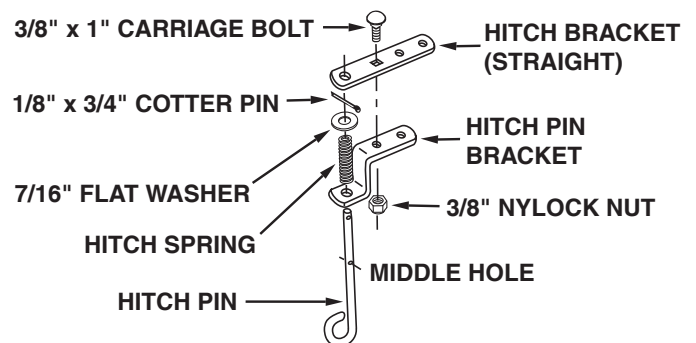


FIGURE 3

## STEP 6 - MEASURE TRACTOR HITCH

9. If your tractor hitch measures 10" or more above the ground go to **STEP 7a**. If your tractor hitch measures less than 10" above the ground go to **STEP 7b**.

## STEP 7a - ASSEMBLE HITCH BRACKETS

(For tractor hitches 10" or more above the ground.)

10. Place the bent hitch bracket on top of the hitch tubes and place the straight hitch bracket with hitch pin underneath the hitch tubes. Fasten together using a 5/16" x 2-1/2" hex bolt (front), a 5/16" x 2-1/4" hex bolt (rear) and two 5/16" nylock nuts as shown in figure 4. The bolts should straddle the front hitch tube bolt. **Do not tighten yet.**
11. Assemble the two hitch spacers onto the hitch pin and secure the pin with the large hairpin cotter. See figure 4.

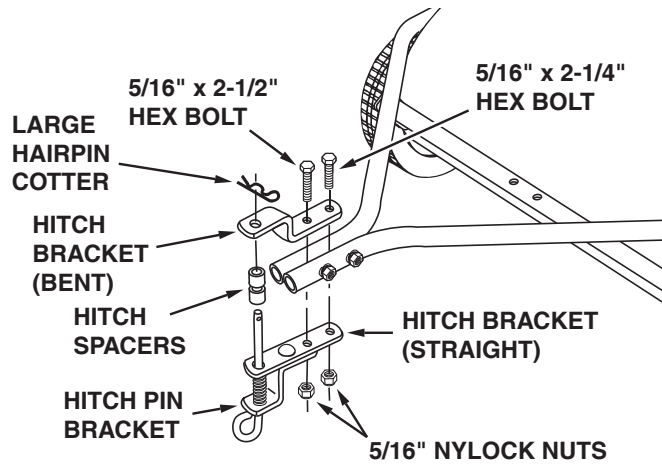


FIGURE 4

## STEP 7b - ASSEMBLE HITCH BRACKETS

(For tractor hitches less than 10" above the ground.)

12. Place the bent hitch bracket underneath the hitch tubes and place the straight hitch bracket with hitch pin on top of the hitch tubes. Fasten together using a 5/16" x 2-1/2" hex bolt (front), a 5/16" x 2-1/4" hex bolt (rear) and two 5/16" hex lock nuts as shown in figure 5. The bolts should straddle the front hitch tube bolt. **Do not tighten yet.**
13. Assemble the two hitch spacers onto the hitch pin and secure the pin with the large hairpin cotter. See figure 5.

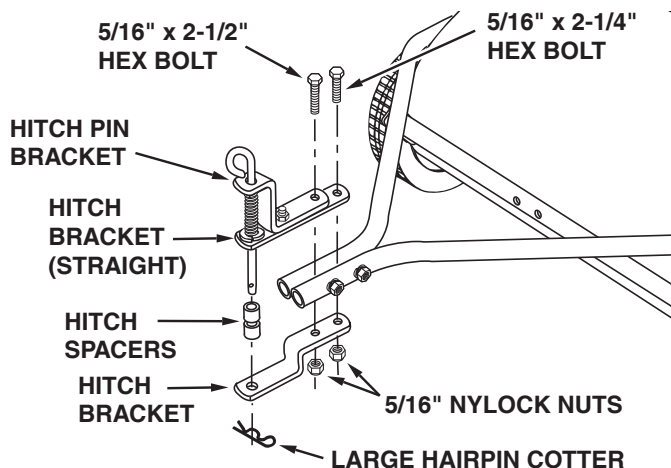


FIGURE 5

## STEP 8 - TIGHTEN BOLTS

14. At this time **tighten** the four bolts in figure 1 that fasten the hitch tubes to the sweeper housing. Next, **tighten** the two bolts in figure 2 that fasten the ends of the hitch tubes together. Finally, **tighten** the two bolts in figure 4 or 5 that fasten the hitch brackets to the hitch tubes.

## STEP 9 - ASSEMBLE THE ANGLE BRACKET

15. Assemble the angle bracket to the sweeper housing using two 5/16" x 3/4" hex bolts and 5/16" nylock nuts. The upright portion of the angle bracket should face toward the left side of the sweeper. See figure 6.

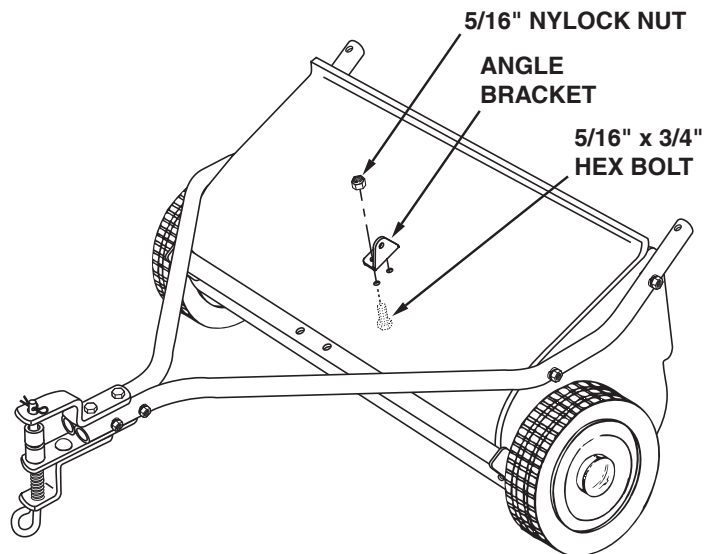


FIGURE 6

## STEP 10 - ASSEMBLE HEIGHT ADJUST HANDLE

16. Assemble the plastic grip onto the upper height adjust handle. See figure 7.
17. Fasten the upper and lower height adjust handles together as shown in figure 7. Use one 5/16" x 1" hex bolt, one 5/16" x 1-1/4" hex bolt, two 5/16" washers and two 5/16" nylock nuts. Place the washers against the slots in the upper handle. Tighten the nuts and then loosen 1/2 turn so that the handles slide easily. See figure 7.

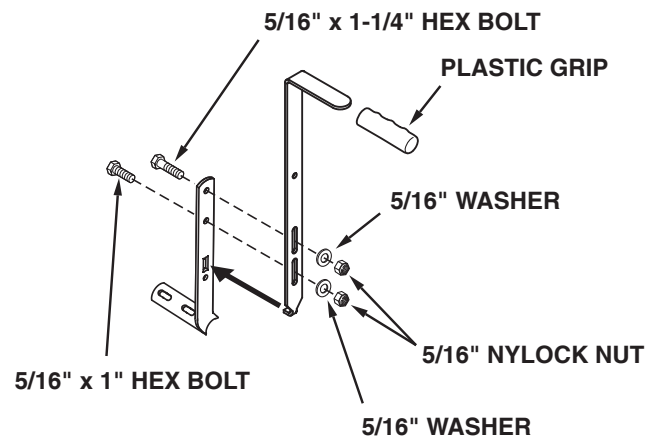


FIGURE 7

### STEP 11 - ASSEMBLE EXTENSION SPRING

18. Assemble a 5/16" x 1" hex bolt and a 5/16" nylock nut into the top hole in the height adjustment handles. See figure 8.
19. Assemble the extension spring onto the end of the upper bolt and the middle bolt in the height adjust handles. Assemble a 5/16" nylock nut onto each bolt so that one thread of the bolt extends through the nut. See figure 8.

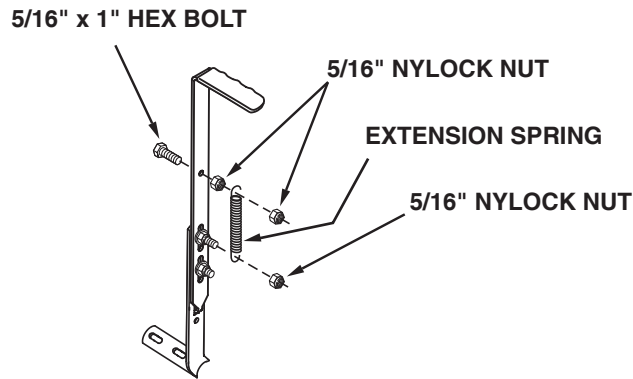


FIGURE 8

### STEP 13 - ATTACH HEIGHT ADJUST STRAP TO ANGLE BRACKET

21. Place the height adjust strap between the angle bracket and the height adjustment handle. Attach the height adjust strap to the angle bracket using a 5/16" x 1" hex bolt, the small spacer, a 5/16" washer and a 5/16" nylock nut. Tighten. See figure 10.

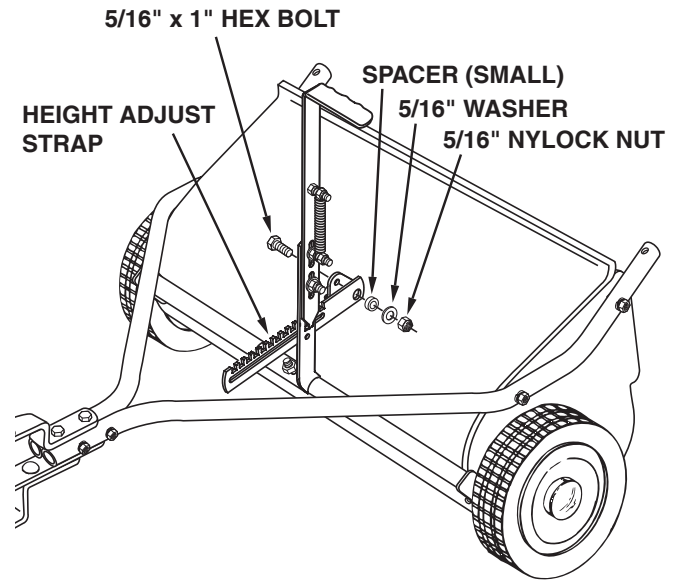


FIGURE 10

### STEP 12 - ATTACH HEIGHT ADJUST HANDLE

20. Assemble the height adjust handles to the height adjustment tube on the front of the sweeper housing. Use two curved head bolts, bowed washers, 5/16" lock washers and 5/16" hex nuts. **Do not tighten yet.** See figure 9.

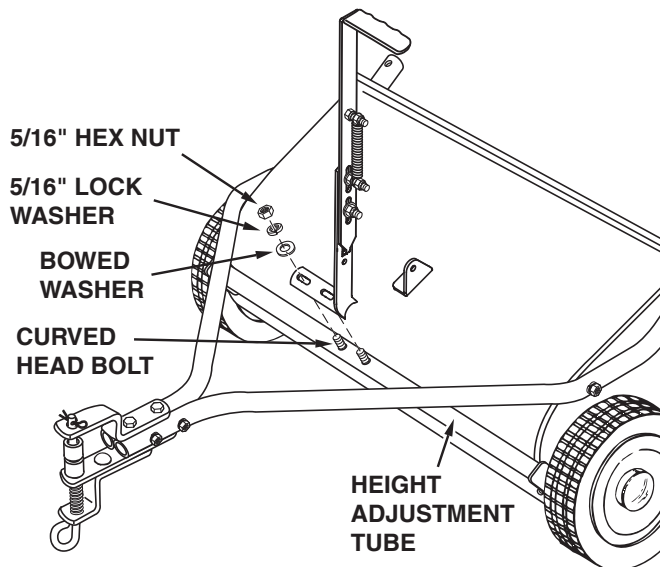


FIGURE 9

### STEP 14 - ATTACH HEIGHT ADJUST STRAP TO HEIGHT ADJUST HANDLE

22. Attach the height adjust strap to the height adjust handle using a 5/16" x 1" hex bolt, 5/16" washer and 5/16" nylock nut. Place the washer against the slot in the height adjust strap. Tighten the nut and then loosen 1/2 turn so that the strap can slide freely. See figure 11.
23. Slide the height adjust handle so that it aligns with the height adjust strap and the angle bracket. Tighten the height adjustment handle in place. See figure 11.

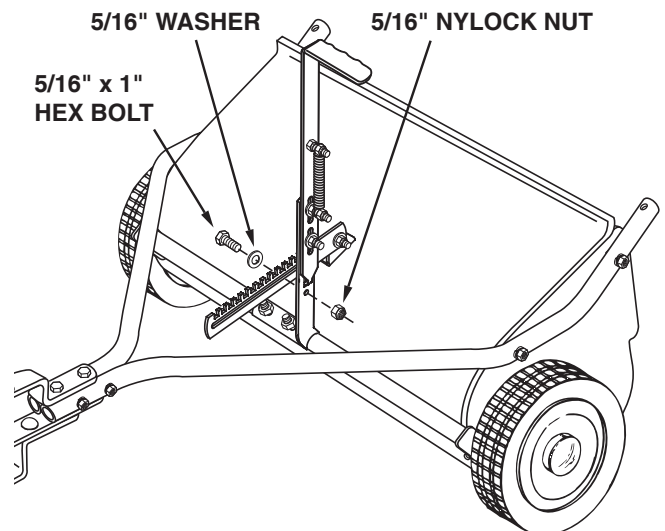


FIGURE 11



# ASSEMBLY OF HOPPER BAG

## STEP 15 - ASSEMBLE UPPER TUBES

1. Insert the left hand upper hopper tube through the stitched flaps of the hopper bag, **starting at the center cut out** in the top of the bag. See figures 12, 13 and 14. Repeat for the right hand upper hopper tube.

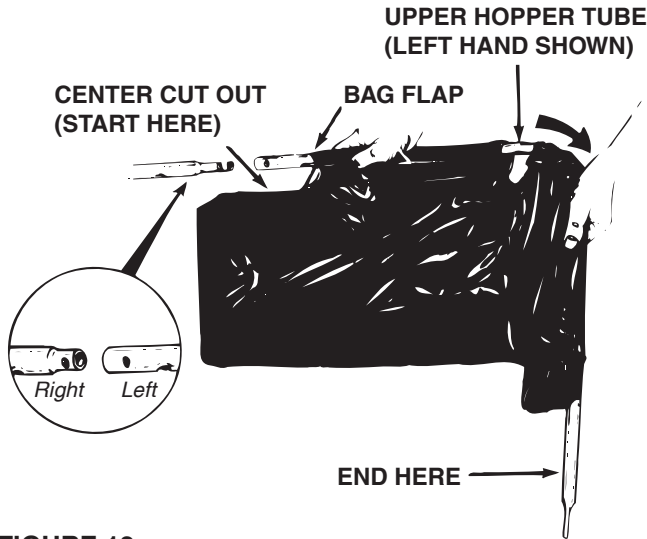


FIGURE 12

2. Slide the two upper hopper tubes together and line up the center holes as shown in figure 13.



FIGURE 13

3. Fasten the upper hopper tubes together using a plastic plug. See figure 14.

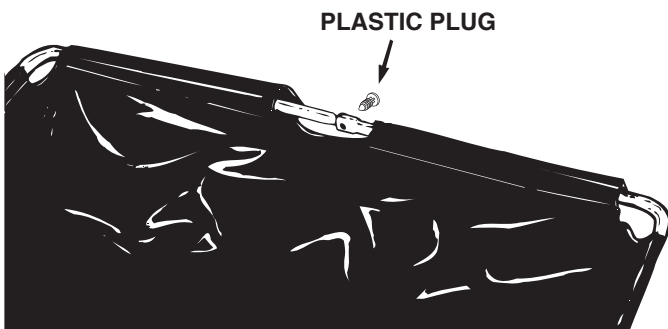


FIGURE 14

## STEP 16 - ASSEMBLE LOWER TUBES

4. Assemble the two lower hopper tube together using a plastic plug. See figure 15.

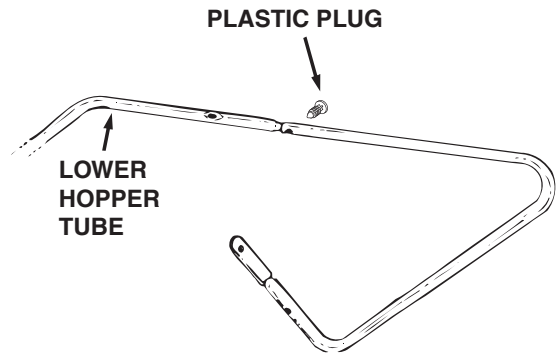


FIGURE 15

5. Place the assembled lower hopper tubes into the bottom of the hopper bag and then slide the tubes to the back of the bag. See figure 16.
6. Attach the ends of the lower hopper tubes to the **inside** of the upper hopper tubes using two  $\frac{3}{8}$ " x  $\frac{1}{2}$ " clevis pins inserted from the inside, and two small hair cotter pins. See figure 16.

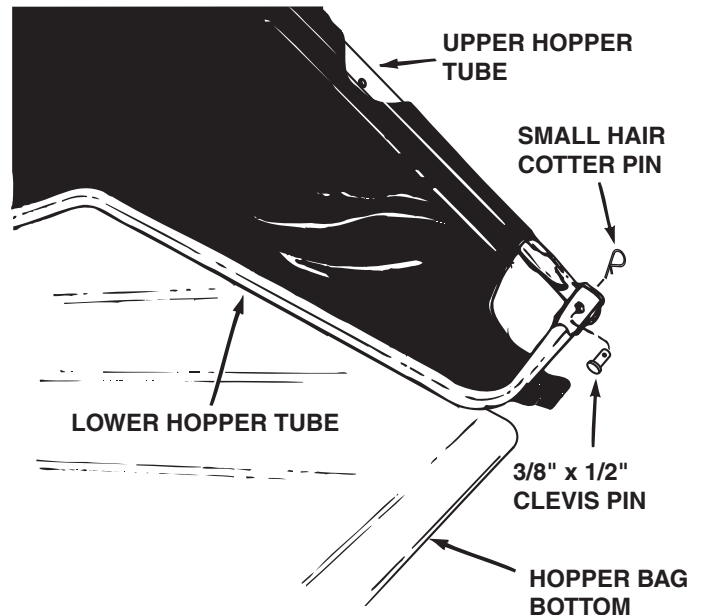


FIGURE 16

### STEP 17 - ATTACH BAG BOTTOM

7. Assemble the bag retainer and the bag frame strap to the front edge of the bag bottom. Place the bag retainer on top and the bag frame strap underneath the bag bottom. Fasten together using six #10 x 5/8" screws and #10-32 nylock nuts. See figure 17.

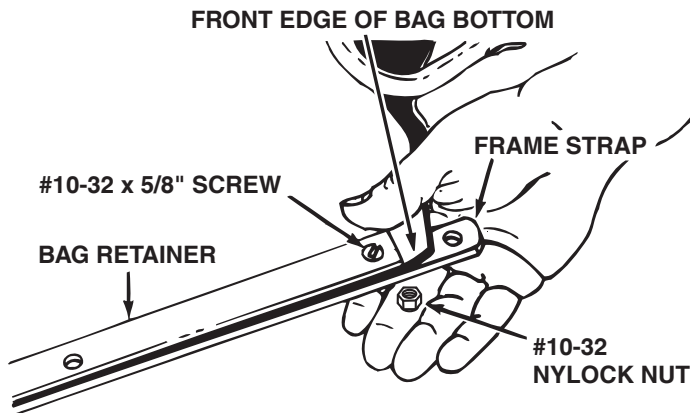


FIGURE 17

### STEP 18 - ATTACH BAG SIDES

9. Fold the bag flaps around the lower hopper tubes and attach to the bag bottom using the snaps. See figure 19.

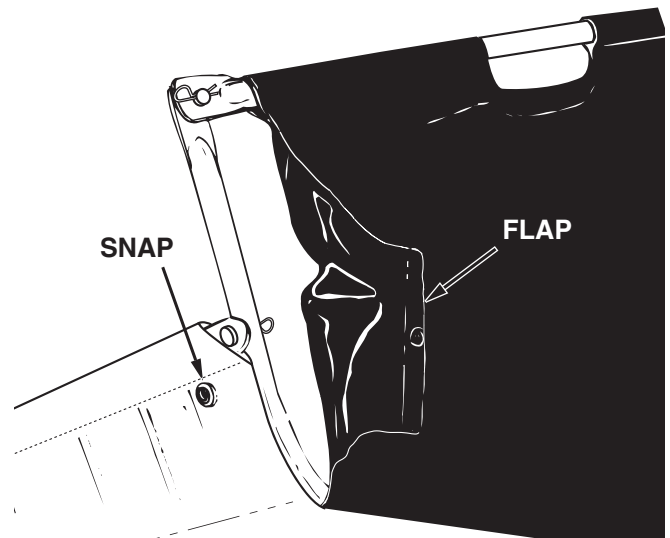


FIGURE 19

8. Assemble the bag frame strap to the holes in the lower hopper tubes using two 1/4" x 1-1/8" clevis pins and small hair cotter pins. See figure 18.

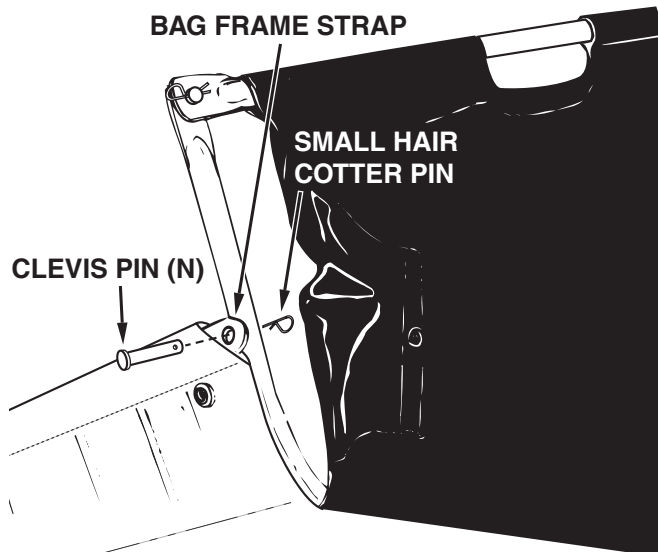


FIGURE 18

### STEP 19 - ASSEMBLE SUPPORT RODS

**IMPORTANT:** Do not over bend the support rods during the following step. Over bending will decrease the supporting tension of the rods.

10. Assemble the two hopper support rods as shown in figure 20. Place the ends of the rods into the holes in the upper and lower hopper tubes, flexing the rod just enough to fit into the holes in the tubes.

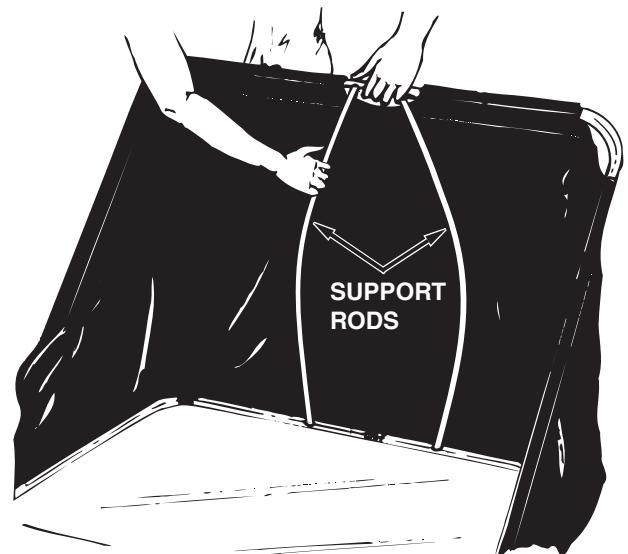


FIGURE 20



## STEP 20 - ASSEMBLE HOPPER ROD, TUBES AND CLAMPS

11. If the hole in the side of the upper hopper tubes is covered over by the bag, locate the hole by touch. It is approximately midway along the side of the bag. Pierce holes through the stitched bag flaps where the holes in both hopper tubes are located. See figure 21.

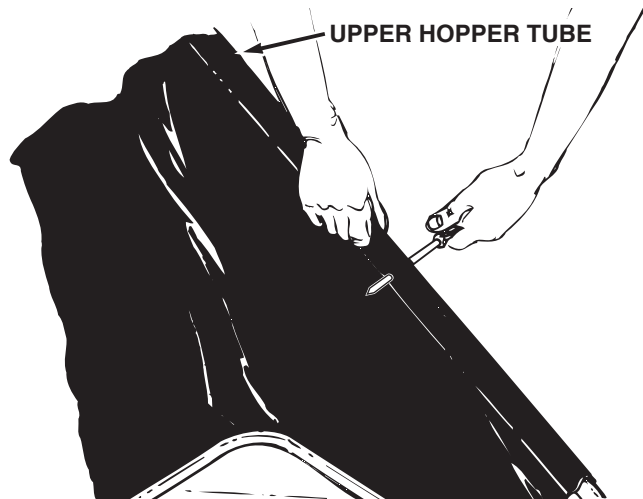


FIGURE 21

12. Slide the hopper bag pivot rod through the hole in an upper hopper tube. Assemble a mounting clamp, two bag arm tubes and another mounting clamp onto the rod as shown in figure 22. Push the rod on through the upper hopper tube on the opposite side of the bag.

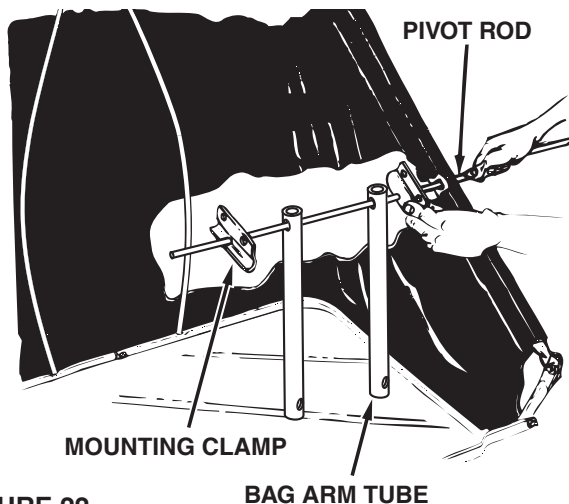


FIGURE 22

13. Assemble the two remaining hopper mount clamps onto the pivot rod on the outside of the bag. Fasten them to the inside clamps using four 5/16" x 3/4" hex bolts and 5/16" nylock nuts. Tighten securely. See figure 23.
14. Assemble two palnuts onto the ends of the pivot rod by lightly tapping them with a hammer. See figure 23.
15. Place a vinyl cap onto each bag arm tube. See figure 23.

**HINT:** To ease assembly of the palnuts, place the bag on its side on a hard surface. With the bottom end of the pivot rod against the surface, tap a palnut onto the top end of the rod. Repeat for other end of rod.

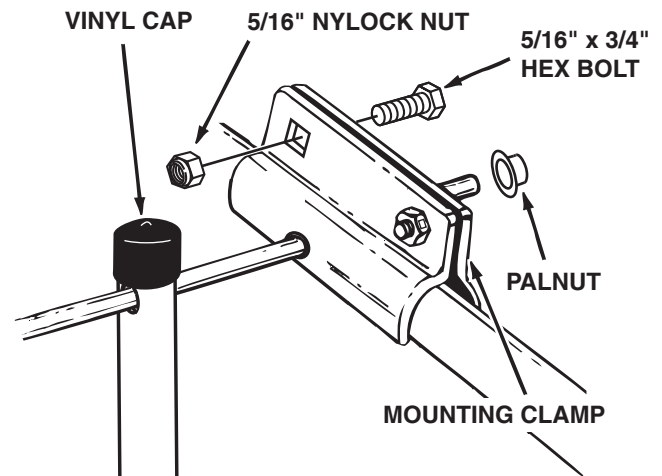


FIGURE 23

## STEP 21 - ATTACH ROPE

16. Secure the rope to the center of the upper rear hopper tube as shown in figure 24.



FIGURE 24

## STEP 22 - ATTACH HOPPER BAG

17. To attach the hopper bag to the sweeper, slide the ends of the bag arm tubes into the ends of the hitch tubes and secure with two 1/4" x 1-3/4" clevis pins and small hairpin cotters. See figure 25.

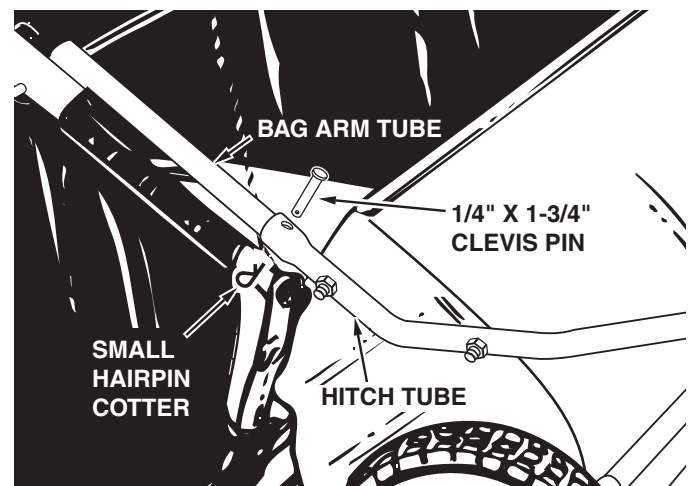


FIGURE 25

## STEP 22 - ATTACH SWEEPER TO TRACTOR

1. Place the tractor and sweeper on a flat level surface.
2. Set the sweeper height adjustment handle to about the middle of its adjustment range.
3. Attach the sweeper hitch to the tractor hitch, arranging the hitch spacers in one of six possible combinations as shown in GROUP A and GROUP B diagrams below.

**IMPORTANT:** To obtain the best performance from your sweeper, arrange the spacers so that the sweeper bag is approximately level with the ground and approximately 5" to 7" off the ground as shown in figure 26.

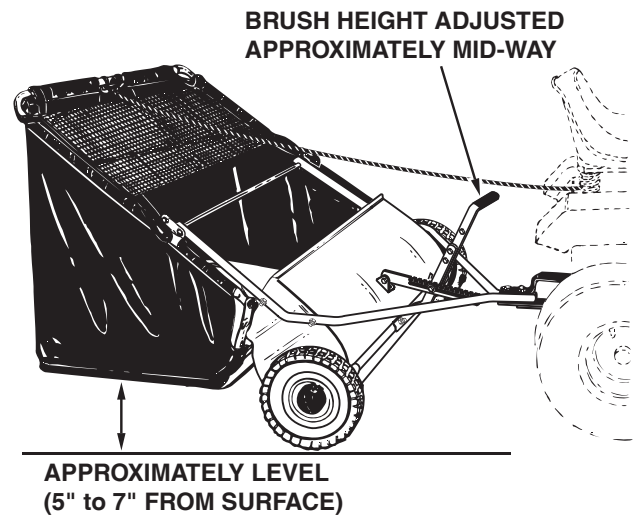
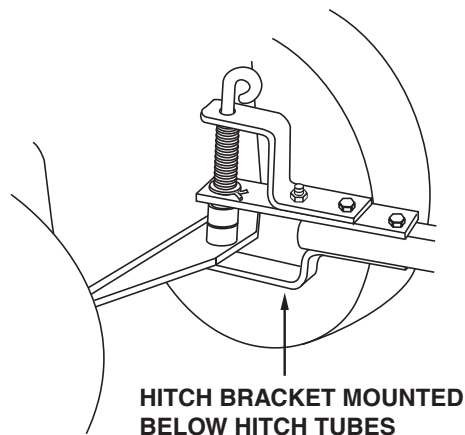
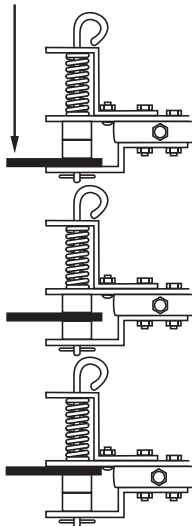


FIGURE 26

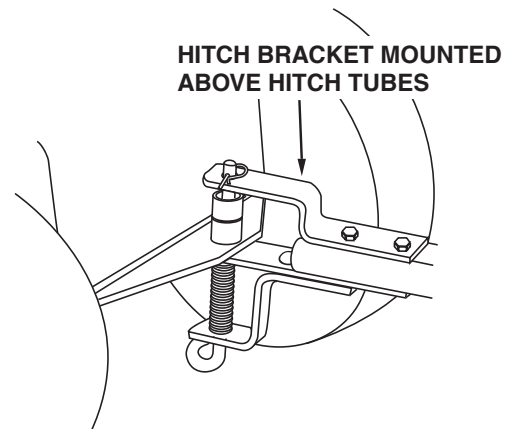
**GROUP "A" - For vehicles with hitches having 8" to 10" ground clearance.**



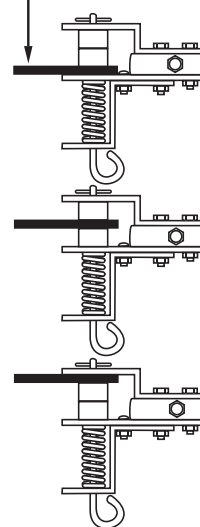
BLACK LINE IS TRACTOR HITCH



**GROUP "B" - For vehicles with hitches having 10" to 13" ground clearance.**

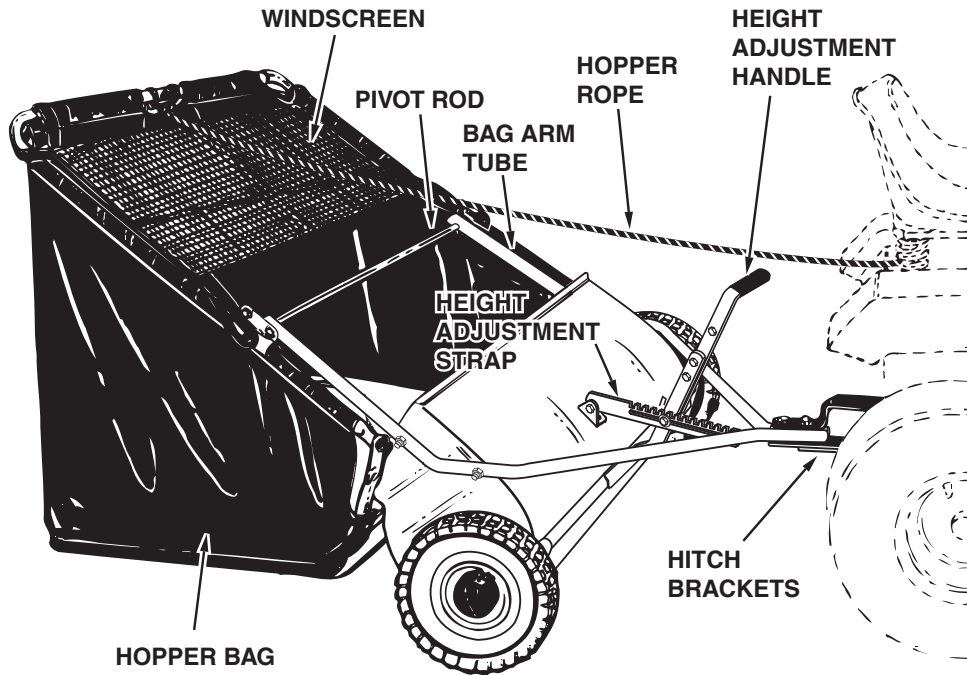


BLACK LINE IS TRACTOR HITCH



# OPERATION

## KNOW YOUR SWEEPER



Hopper Bag	Collects grass clippings, leaves and debris.
Hopper Rope	Permits dumping of hopper bag from driver's seat.
Windscreen	Helps prevent collected material from being blown out of hopper bag.
Bag Arm Tubes	Connects the hopper bag to the sweeper housing.
Pivot Rod	Allows hopper bag to tilt forward to dump material.
Height Adjustment Handle	Adjusts the operating height of the sweeper.
Height Adjustment Strap	Holds the height adjustment handle in position when locked.
Hitch Bracket	Connects the sweeper to the towing vehicle. Adjusts for various height tractor hitches.

## HOW TO USE YOUR SWEEPER

### BRUSH HEIGHT ADJUSTMENT

1. To adjust your sweeper brushes to the best operating height, lift up on the height adjustment handle to disengage it from the height adjustment strap. Move the handle forward or backward to raise or lower the brush. See figure 26. Best adjustment is when the brush setting is 1/2" down into the grass. Always mow the grass to an even height before sweeping.

### SWEEPING SPEED

2. Try a starting speed of approximately 3 m.p.h. (third gear on most tractors). Depending on the conditions, it may be necessary to adjust the sweeping speed in order to achieve best results.

### DUMPING OF SWEEPER

3. Your sweeper can be dumped easily without getting off of the tractor. Pull the rope forward to dump the hopper. Always empty hopper after each use.



**CAUTION:** Never attach the hopper rope to any part of your body or clothing! **Never hold onto** the rope while towing the sweeper! **Attach the rope** to the towing vehicle to keep it away from wheels and rotating parts.



**CAUTION:** Keep sweeper away from fire. Excessive heat can damage the brushes and hopper bag and could cause the bag and its contents to burn.

# MAINTENANCE

## SCHEDULED MAINTENANCE

1. Clean the sweeper after each use.
2. Inspect for worn or damaged parts, such as brushes and wheels.
3. Lubricate the brush shaft bearing twice a year with a few drops of light weight oil. See figure 27.

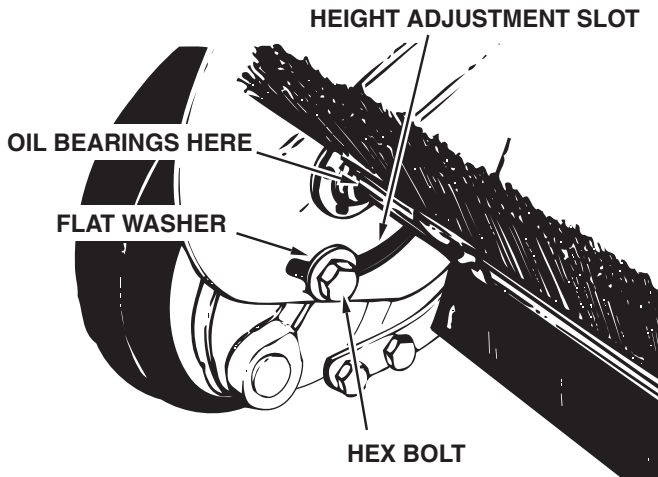


FIGURE 27

4. Lubricate the wheel bearings each season. Remove the hub cap and apply a few drops of light weight oil.
5. Every two years, remove the wheels and clean the gears found inside the wheel housing. After cleaning, lubricate the gears with an even coat of light grease. To remove the wheel, pop off the hub cap and remove the lock nut, flat washer and hub cap washer. See figure 28.

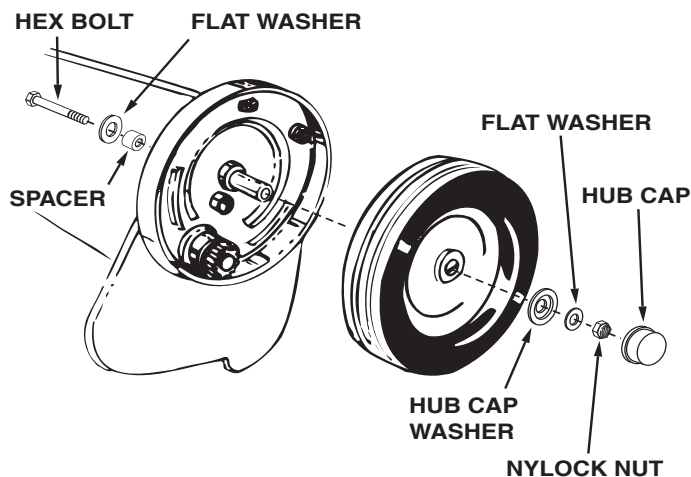


FIGURE 28

## CLEANING

6. Clean sweeper housing with a soft brush or cloth.
7. Clean debris from hopper bag with a brush or broom.
8. Remove any material which has wrapped around brushes or ends of brush shaft.

## STORAGE

**CAUTION:** Before storing the sweeper, always empty the hopper bag to avoid spontaneous combustion.

1. Clean the sweeper and hopper bag thoroughly to help prevent rust and mildew.
2. To collapse the hopper bag for storage, remove the two hopper support rods from the rear of the hopper.
3. Store in a dry area.

# SERVICE AND ADJUSTMENTS

## BRUSH REPLACEMENT

**NOTE:** Brush replacement should be done one brush at a time.

1. Remove the hopper bag from the sweeper.
2. Loosen only the two hex bolts and lock nuts which clamp one brush in a brush retainer. **Do not loosen** or remove the bolts which fasten the brush retainers to the brush shaft. See figure 29.
3. Lift the brush out of the retainers, noting on which side of the brush the bristles overlap. See figure 29.
4. Install new brush, making sure the bristles overlap on the same side of the brush as before. See figure 29.
5. Tighten the two hex bolts and lock nuts to clamp the new brush in place before removing the next brush.

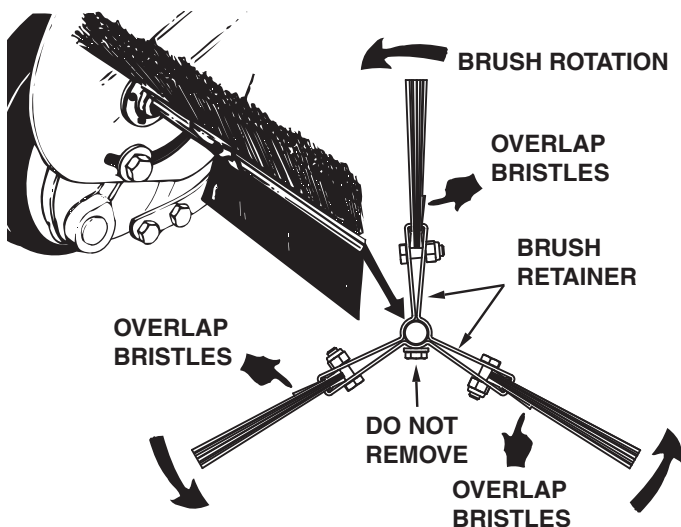


FIGURE 29

## WHEEL GEAR AND PAWL SERVICE

**IMPORTANT:** **Do not** remove both wheels at the same time to avoid mixing of parts. (The R.H. and L.H. ratchet gears are not interchangeable.) **Make notes** on the position of washers and snap rings during disassembly.

1. Remove **only one** wheel from the sweeper.
2. Remove the retaining rings and washers which hold the ratchet gear onto the brush shaft.
3. Remove the gear by sliding it off the brush shaft. (Look for the drive pin, which may fall out of the brush shaft when the ratchet gear is removed.) See figure 30.
4. To reassemble, insert the drive pin through the hole near the end of the brush shaft. Make sure the pin slides back and forth easily in the shaft. See figure 30.
5. Lightly grease the shaft and fill the ratchet gear with grease. Assemble the ratchet gear back onto the shaft. See figure 30.
6. Lightly grease the axle and the gear teeth on the wheel, and then reassemble the wheel. The brushes should rotate **only** during forward rotation of the wheel. If the brushes are driven (rotated) by both forward and reverse rotation of the wheel, the drive pin is jamming in the ratchet gear. Disassemble to clean and lubricate the drive pin and the ratchet gear. See figure 30.
7. Remove the second wheel and repeat the procedure.

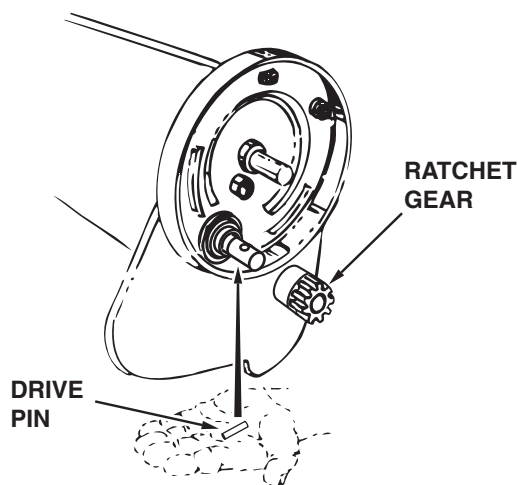


FIGURE 30

## TROUBLESHOOTING

Wheels skid when sweeping.	<ol style="list-style-type: none"><li>1. Brushes set too low.</li><li>2. Brushes are jammed</li><li>3. Wheels are jammed.</li></ol>	<ol style="list-style-type: none"><li>1. Adjust height till brushes are 1/2" down into grass.</li><li>2. Stop sweeper. Remove obstruction.</li><li>3. Remove one wheel at a time to check for obstruction or damage. Refer to Service and Adjustments section.</li></ol>
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This diagram illustrates the assembly of a vehicle chassis and body. The main components shown include:

- Chassis Frame:** Consists of the front cross-member (1), side rails (2, 3), and rear cross-member (4). It also includes various mounting brackets and reinforcement plates (5, 6, 7, 12, 13).
- Wheels and Axles:** The front axle assembly (17) includes a differential housing (10), axle tubes (8, 9), and a steering knuckle (11). The rear axle assembly (18) includes a differential housing (22), axle tubes (20, 21), and a rear axle housing (24). Both axles are equipped with wheels (55) and tires (56).
- Body and Cargo Area:** The body is formed by side panels (41, 42), a front panel (43), and a rear panel (46). It is supported by a frame of rails (44, 45) and cross-members (47, 48). The cargo area is reinforced with a floor plate (49) and side panels (50, 51).
- Fasteners and Hardware:** Numerous bolts (20), nuts (22), washers (23), and other hardware are shown throughout the assembly, securing the various components together.

The diagram uses a combination of numbers (1-86) and letters (A, B, C, D, E) to identify individual parts and their assembly points.



# REPAIR PARTS FOR MODEL 45-0352, 45-0352-669 - 42" PROFESSIONAL LAWSWEEPER

REF. NO.	PART NO.	QTY.	DESCRIPTION	REF. NO.	PART NO.	QTY.	DESCRIPTION
1	46776	1	Hitch Tube, R.H.	46	43938	2	Rod, Hopper Support 34"
2	46777	1	Hitch Tube, L.H.	47	43737	1	Hopper Rope
3	64753	1	Housing Assembly	48	24864	1	Strap, Height Adjustment
4	9M5732	6	Rivet	49	23687	1	Bracket, Hitch
5	46778	1	Skirt, 42"	50	24192	1	Bracket, Hitch (Straight)
6	24186	1	Retainer, Skirt	51	24865	1	Handle, Upper Height Adjustment
7	63463	1	Height Adjustment Tube Ass'y.	52	24866	1	Handle, Lower Height Adjustment
8	1629-56	2	Retainer, Dust Cover	53	46781	2	Tube, Bag Arm
9	44232	2	Ball Bearing	54	46823	1	Rod, Hopper Bag Pivot
10	64733	2	Brush Bushing Ass'y.	55	49308	2	Wheel & Tire Ass'y. (with bearings)
11	49152	8	Rivet	56	49306	2	Wheel Bearing
12	25138	1	Brush Shaft	57	23684	1	Bracket, Hitch Pin
13	48557	6	Brush, 42"	58	46782	2	Bolt, Hex 5/16-18 x 3" Lg.
14	43661	12	Bolt, Hex 1/4-20 x 1" Lg.	59	43224	1	Bolt, Hex 5/16-18 x 2-1/4" Lg.
15	47189	12	Nut, Nylock 1/4-20 Thread	60	44292	1	Bolt, Hex 5/16-18 x 2-1/2"
16	25137	12	Brush Retainer	61	43084	4	Bolt, Hex 5/16-18 x 1-3/4" Lg.
17	1540-31	4	Washer, Flat .78" x 1.25" x .06"	62	44481	2	Cap, Vinyl
18	47046	2	Dowel Pin (Drive)	63	43081	4	Washer, Flat 5/16"
19	43182	10	Bolt, Hex 5/16-18 x 3/4" Lg.	64	43063	2	Bolt, Hex 5/16-18 x 1"
20	47810	25	Nut, Nylock 5/16-18 Thread	65	43840	1	Bolt, Hex 5/16-18 x 1-1/4"
21	44911	2	Spacer, .41" x 1.125" x .50"	66	43000	1	Spring, Extension
22	141	4	Washer, Flat 1-1/2" x .375" x .062"	67	25407	1	Angle Bracket
23	44006	2	Washer, .849" x .598" x .025"	68	43086	2	Lock Washer, 5/16"
24	23336	2	Washer, Special	69	43943	1	Grip, Height Adjust
25	46219	2	Spacer, .78" x 1.25" x .50"	70	23368	2	Spacer, Hitch
26	1650-21	4	Ring, Retaining .594"	71	43343	1	Hairpin Cotter, 1/8"
27	44007	6	Washer, Shim 1-1/8" x .594" x .025"	72	46816	1	Pin, Hitch
28	1038	2	Nut, Nylock 3/8-24 Thread	73	44230	1	Spring, Hitch Pin
29	43014	2	Hub Cap	74	43352	1	Washer, 7/16" Flat
30	25440	2	Washer, Hub Cap	75	142	1	Pin, Cotter 1/8" x 3/4" Lg
31	44961	2	Bolt, Hex 3/8-24 x 3-1/4" Lg.	76	43350	1	Bolt, Carriage 3/8-16 x 1"
32	23400	3	Spacer, Small	77	HA21362	1	Nut, Nylock 3/8-16
33	48652	1	Gear, Pinion R.H. (not shown)	78	44947	2	Bolt, Cvd. Hd. 5/16-18 x 1-5/8" Lg.
34	48651	1	Gear, Pinion L.H.	79	44695	2	Washer, Bowed 1" x .32" x .06"
35	43866	4	Bolt, Hex 1/4-20 x 5/8"	80	43083	2	Nut, Hex 5/16-18 Thread
36	43177	4	Lock Washer, 1/4"	81	23331	4	Hopper Mount Clamp
37	64559	2	Dust Cover Assembly	82	44917	2	Palnut, 3/8"
38	46732	1	Lower Hopper Tube, R.H.	83	48402	2	Plug, 1/4"
39	46733	1	Lower Hopper Tube, L.H.	84	48365	2	Pin, Clevis 1/4" x 1-1/8"
40	46734	1	Upper Hopper Tube, R.H.	85	48366	2	Pin, Clevis 3/8" x 1/2"
41	46735	1	Upper Hopper Tube, L.H.	86	43055	6	Hairpin Cotter, 3/32" #3
42	46738	1	Hopper Bag	87	46867	2	Pin, Clevis 1/4" x 1-1/2" Lg.
43	46739	1	Wind Screen	88	43346	6	Screw, #10-32 x 5/8" Truss Head
44	25430	1	Strap, Bag Frame	89	47171	6	Nut, Nylock #10-32
45	24190	1	Retainer, Bag		48959	1	Owners Manual

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